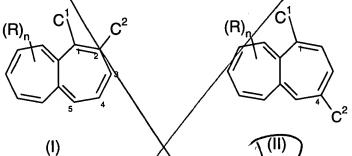
Please amend the above-identified patent application, without prejudice, as follows:

## **IN THE CLAIMS:**

Amend claims 1, 16 and 25 by replacement as follows:

1. (amended) Method for information storage and data processing comprising the step of thermo-inducing or photo-inducing double-bond shifts in substituted [4n]-annulenes which are substituted by at least one group comprising an extended conjugated  $\pi$ -electron system which is in conjugation with the  $\pi$ -electron system of the [4n]-annulene core, thus generating transitions between two different conjugation states with at least one substituent to produce and/or process a material having at least two distinguishable physical states.

16. (amended) Substituted [4n]-heptalenes of the general formula (I) or (II) being optically and/or thermally switchable, based on thermal or photochemical double-bond shifts,



whereby  $C^1$  and  $C^2$  represent independently from each other a hydrogen atom, a substituted or unsubstituted  $C_1$ - $C_{12}$ -alkyl group, a substituted or unsubstituted or unsubstituted or unsubstituted aryl- $C_1$ - $C_{12}$ -alkyl group, a substituted or unsubstituted  $C_1$ - $C_{12}$ -alkenyl group, a substituted or unsubstituted  $C_1$ - $C_{12}$ -alkenyl group, a substituted or unsubstituted  $C_1$ - $C_{12}$ -alkinyl group, a substituted or unsubstituted  $C_1$ - $C_{12}$ -alkinyl group, a substituted or an unsubstituted phenyl group, a substituted or an unsubstituted heterocyclic group, a cyano group, a nitro group, a thiocyanate group, a  $C_1$ - $C_{12}$ -ester group being optionally polymerisable

B2

with copolymers, with the proviso that at least one of said substituents  $C^1$  and  $C^2$  contains a  $\pi$ -electron system which is in conjugation with the  $\pi$ -electron system of the heptalene core, and whereby said [4n]-heptalenes can comprise at least one further substituent R being selected from the above indicated groups with n being 0-8,

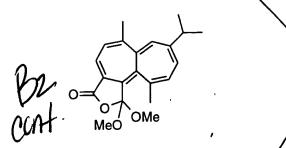
provided that if one of the at least one further substituents R is an (a) isopropyl group at the position 9 of the heptalene ring, the substituent at the position 6 must not be a methyl group, and

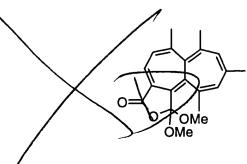
with the proviso that heptalenes having the following formulae including their valence isomers are excluded:

H<sub>3</sub>COOC H<sub>3</sub>COOC / H³COOC H³COOC H<sub>3</sub>COOC / H³COOÇ H<sub>3</sub>COOC H<sub>3</sub>COOC / H<sub>3</sub>COOC / Ar<sup>1</sup> = phenyl, 4-chloro phenyl or 4-methoxy phenyl H<sub>3</sub>COOC / ,  $Ar^2 = phenyl / o A-methoxy phenyl,$ H<sub>3</sub>COOC / H<sub>3</sub>COOC HOOC / H<sub>3</sub>COOC H₃COOC X HOOC H<sub>3</sub>COOC / HOOC HOOC / CH<sub>3</sub>OOC H3COO н₃соос and

cent

H³COOÉ. H<sub>3</sub>COOC H3COOC H³COÓÇ H³COOC. H<sub>3</sub>COOC н,сооб н₃соос′ -ОМе H<sub>3</sub>COOC н₃соос́ H³COOC H<sub>3</sub>COOC н₃соос H00e 0 Н<sub>3</sub>СООС and





25. (amended) Process of information storage and data processing by using substituted [4n]-annulenes which are substituted by at least one group comprising an extended conjugated  $\pi$ -electron system which is in conjugation with the  $\pi$ -electron system of the [4n]-annulene core undergoing thermally induced or photo-induced double-bond shifts thus generating or processing previously generated at least two different conjugation states with at least one substituent in selected regions of storage medium.

by